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خلاصه مقاله:

Yield data of ۱۲ Fenugreek (Trigonella foenum-graecum L.) genotypes tested across ۹ rain-fed environments during the ۲۰۱۵-۲۰۱۷ growing season using RCBD in ۳ replications were analyzed using the AMMI model. The AMMI analysis tested in nine environments (years) were showed that the yield was significantly affected ($P<۰.۰۰۱$) by environment main effects. However, it was not significantly affected by genotypes main effect as well as GxE interaction. The model revealed that differences between the environments accounted for about ۹۱.۲۸% of the treatment sum of squares. The genotypes and the GxE interaction also accounted significantly for ۰.۹۲ % and ۷.۷۹% respectively of the treatment SS. The first principal component axis (PCA ۱) of the interaction captured ۴۸.۶۱% of the interaction sum of squares. Similarly, the second principal component axis (PCA۲) explained a further ۲۴ % of the GEI sum of squares. The mean squares for the PCA ۱ and PCA ۲ were significant at $P=۰.۰۱$ and cumulatively contributed to ۷۲.۶۱% of the GxE interaction SS, leaving ۲۷.۴۴% of the variation in the GxE interaction in the residual. The AMMI and AMMI stability value (ASV) identified G۷ and G۵ as the stable and high yielding genotypes.Yield data of ۱۲ Fenugreek (Trigonella foenum-graecum L.) genotypes tested across ۹ rain-fed environments during the ۲۰۱۵-۲۰۱۷ growing season using RCBD in ۳ replications were analyzed using the AMMI model. The AMMI analysis tested in nine environments (years) were showed that the yield was significantly affected ($P<۰.۰۰۱$) by environment main effects. However, it was not significantly affected by genotypes main effect as well as GxE interaction. The model revealed that differences between the environments accounted for about ۹۱.۲۸% of the treatment sum of squares. The genotypes and the GxE interaction also accounted significantly for ۰.۹۲ % and ۷.۷۹% respectively of the treatment SS. The first principal component axis (PCA ۱) of the interaction captured ۴۸.۶۱% of the interaction sum of squares. Similarly, the second principal component axis (PCA۲) explained a further ۲۴ % of the GEI sum of squares. The mean squares for the PCA ۱ and PCA ۲ were significant at $P=۰.۰۱$ and cumulatively contributed to ۷۲.۶۱% of the GxE interaction SS, leaving ۲۷.۴۴% of the variation in the GxE interaction in the residual. The AMMI and AMMI stability value (ASV) identified G۷ and G۵ as the stable and high yielding genotypes.

کلمات کلیدی:

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